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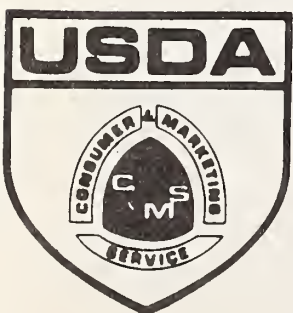
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PROCUREMENT SECTION  
CURRENT SERIAL RECORDS

# Cotton Fiber and Processing Test Results

CROP of

1971



Consumer and Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38117 January 7, 1972

This is the eleventh of a series of reports of fiber and processing test results from the 1971 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1970", March 1971. These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.



## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1971

### Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that fibers from Southwestern short staple samples tested, to date, are weaker than through the same period a year ago. Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples are weaker and show more imperfections. Average spinning potential yarn number is lower than last season.

Averages for all medium staple samples tested through December 31, 1971 show longer fibers than a year ago. Zero gage fiber strength is lower. Yarns spun from these samples show higher appearance grades.

Medium staple samples from the Southeast are weaker than a year ago. Yarns spun from these samples are weaker with higher appearance grades and more imperfections.

South Central medium staple samples are longer and finer than last season. Yarns spun from these samples show higher appearance grades.

Medium staple samples from the Southwest are weaker at 1/8-inch gage fiber strength than a year ago. Yarns spun from these samples show higher appearance grades and fewer imperfections. Average spinning potential yarn number is lower than a year ago.

Medium staple samples from the West are longer than last year. Yarns spun from these samples show higher appearance grades.

Averages for all long staple samples tested, not including roller ginned, are weaker than through the same period a year ago. Picker and card waste and comber waste are higher than last season. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections.

No additional Southeast or South Central long staple samples were received during this report period.

Long staple samples from the West are shorter and weaker at 1/8-inch fiber strength than last season. Shirley Analyzer nonlint content is lower. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections. Average spinning potential yarn number is higher than last season.

No additional American Pima extra long staple samples were received during this report period.

Extra long staple, American Pima, samples from the West are shorter and weaker than last season. Shirley Analyzer nonlint content is lower while picker and card waste is higher. Yarns spun from these samples are weaker than last year.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States  
1/  
through December 31, 1971

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.		
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance		Imperf- actions	
		Inches		Pct.	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs.	Index	No.	
		22s Carded Yarn											Yarn No.
<u>Short Staple:</u> Southwest	52	0.94	46	4.4	86	21	3.3	6.0	92	114	29	44	
	34	0.95	45	4.3	80	20	4.2	7.0	85	115	36	37	
<u>Medium Staple:</u> Southeast	83	1.07	45	4.4	83	23	3.6	6.7	102	101	18	60	
	67	1.08	45	4.4	79	22	3.4	6.6	99	109	20	61	
South Central	161	1.08	45	4.5	82	22	3.2	6.2	101	107	21	61	
	142	1.10	44	4.3	81	22	3.0	5.9	103	112	20	62	
Southwest	61	1.07	46	4.3	86	23	3.2	6.2	105	114	28	63	
	31	1.06	45	4.4	85	22	3.3	5.9	102	120	22	58	
West	61	1.10	45	4.2	92	25	2.7	5.5	117	114	24	69	
	60	1.12	45	4.2	92	25	2.7	5.3	121	120	24	70	
U. S. Average	366	1.08	45	4.4	85	23	3.2	6.2	105	108	22	62	
	300	1.10	45	4.3	83	23	3.1	5.9	106	114	21	63	
Significant dif- ference <u>2/</u>		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States  
through December 31, 1971

1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results					Processing Test Results										SPY
		Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality				No.			
		Span	Unif		Zero gage	1/8" gage				Strength carded	Appearance carded	Imprfctns card	combed				
																Strength combed	
No.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Pct.	Pct.	Lbs.	Lbs.	Indx	Indx	No.	No.	No.		
<u>22s Carded &amp; Combed Yarn</u>																	
Long Staple:																	
Southeast																	
1970	14	1.14	45	4.7	82	23	4.5	8.6	18.5	109	122	103	100	21	11	65	
1971	16	1.14	43	4.3	79	22	4.2	9.7	17.2	102	118	109	118	22	10	65	
South Central																	
1970	6	1.16	42	4.6	85	24	4.5	9.2	20.0	102	124	93	115	26	10	62	
1971	3	1.22	43	4.5	83	24	5.3	9.6	16.4	113	130	107	117	20	9	70	
West																	
1970	20	1.18	45	3.7	92	27	3.5	8.2	16.0	134	152	86	94	43	26	75	
1971	11	1.16	44	3.6	92	26	2.3	8.5	16.1	129	146	99	104	22	14	78	
U. S. Average																	
1970	40	1.16	45	4.2	87	25	4.0	8.5	17.5	120	137	93	99	33	18	70	
1971	30	1.16	43	4.1	84	24	3.6	9.2	16.7	113	129	105	113	22	11	70	
50's Combed Yarn																	
American Upland																	
Extra Long Staple:																	
West																	
1970	2	1.42	32	3.8	111	36	2.6	7.7	18.8		71	105			7		
1971	2	1.41	30	4.0	105	30	2.0	8.2	16.0		66	100			10		
American Pima																	
West																	
1970	16	1.48	31	3.7	99	34	3.4	7.7	17.8		70	111			4		
1971	19	1.45	31	3.8	98	33	2.7	8.4	17.5		65	113			3		
Significant Difference 2/		0.02	2	0.2	2	1	0.5	0.5	0.5	4(22s)	4(22s)	5	5	2	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten-tial	
				2.5% span	Unif		Zero Gage	1/8" Gage			Gr	Yel		8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx		
No	Grade	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTHWEST NORTHWEST TEXAS																							No
COTTON CENTER																							No
2 IM	511/	30	0.95	43	3.2	81	20	STRIPPER 31	6.8	3.8	2	3	85 PERCENT	6.6	275	81	6.7	5.9	120	110	78	41	41
LAMESA																							No
1 MID LT SP	32	30	0.91	45	3.6	76	20	BLIGHTMASTER A-5	6.7	3.0	2	3	75 PERCENT	5.4	280	81	7.7	6.6	120	120	50	36	35
LOCKNEY																							No
2 SIM LT SP	422/	30	0.98	42	2.9	79	21	STRIPPER 31	6.9	4.7	2	4	75 PERCENT	7.6	287	85	7.2	6.2	110	100	97	60	37
MULESHOE																							No
2 IM LT SP	523/	30	0.95	47	2.8	82	22	PAYMASTER 202	6.6	4.7	3	4	80 PERCENT	8.6	296	85	7.2	6.1	120	110	94	48	35
RULE																							No
2 IM LT SP	523/	33	1.05	43	4.1	74	20	LANKART LX-571	7.1	6.6	3	4	100 PERCENT	8.0	288	84	7.1	6.0	120	100	86	58	45
NEW MEXICO																							No
CAUSEY																							No
1 IM LT SP	523/	30	0.85	45	3.0	83	19	GREGG 35	6.3	6.0	3	4	75 PERCENT	8.3	287	84	6.8	5.7	120	120	120	75	31
PORTALES																							No
2 IM LT SP	523/	30	0.83	45	2.7	85	20	RILCOT 90	6.2	7.8	3	3	80 PERCENT	11.0	292	86	6.5	5.9	110	100	111	66	33

1/ Reduced from 41 because of bark  
2/ Reduced from 32 because of bark  
3/ Reduced from 42 because of bark



Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Grade		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent- ial		
			2.5% span	Unif.		Zero Gage	1/8" Gage			Pct	Pct		Gra	Yel	Pct	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx	50s or 12 tx
No	Name & Code		In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No		
SOUTH CENTRAL																							
LOUISIANA																							
SHREVEPORT																							
41	34		1.10	41	2.8	78	23	8.2	2.6	2	2	100 PERCENT	38	109	7.4	5.1	70	60	70	59	64		
SOUTHWEST																							
NORTHWEST TEXAS																							
LUBBOCK																							
42	31	0.97	43	3.3	80	21	6.2	4.7	3	3	75 PERCENT	30	93	5.9	4.1	110	80	58	35	49			
O'DONNELL																							
52	31	0.94	45	3.0	82	22	7.3	5.0	3	4	80 PERCENT	27	92	5.5	3.4	120	90	34	26	48			
SLATON																							
52	33	1.05	42	3.0	78	22	7.0	4.8	3	3	100 PERCENT	36	103	6.9	4.8	120	80	46	37	56			
WEST ARIZONA																							
SAFFORD																							
32	35	1.09	42	3.4	79	22	7.3	3.5	2	4	100 PERCENT**	33	104	6.6	4.9	120	90	44	32	61			

\* 100 percent selected for tests, less than 100 percent in the area  
 1/Reduced from 42 because of bark

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification &				Fiber Test Results										Processing Test Results - Carded Yarns															
Sample Number				Digital Fibrograph		Mike		Fiber Strength		Elon-gat'n 1/8"		S.A. Non-Lint		Color Raw Stock		P & C		Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential			
No	Grade	Stple	32s	2.5% span	Unif.	Pct	Rdg	Mpsi	G/tex	Pct	1/8" Gage	Pct	Lint	Gra	Yel	No	No	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	No	No		
WESTERN																													
NEW MEXICO																													
ARTESIA																													
41	36	1.12	42	2.7	89	25	ACALA	1517V	5.5	3.3	1	3	10.4	131	50	7.0	5.7	80	60	48	43	81							
3	SLM																												
																	* 19.5	151	58	7.1	5.8	90	70	29	25				

\* Comber Waste and Combed Yarn Data  
1/ 100 percent selected for tests, less than 100 percent in the area

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns										
Sample Number		Grade	Stple	Array Length		Mike	Fiber Strength		Elon-gat'n 1/8" Gage	S.A. Non-Lint	Color Raw Stock		P & C Waste	Comber Waste		Strength		Elongation		Appearance Index		Imprfct'ns		
				UQL	CV		Zero Gage	1/8" Gage			Gra	Yel		50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx			
No	Name & Code		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
WESTERN																								
ARIZONA																								
2	3	CASA GRANDE	44	1.48	30	3.6	98	PIMA S-2 34	6.5	2.1	3	5	70 PERCENT 7.7	17.4	63	37	5.5	5.2	110	110	2	2		
3	4	CASA GRANDE	44	1.48	30	3.8	99	PIMA S-2 33	6.8	3.5	4	5	70 PERCENT 9.7	18.5	67	38	5.7	5.1	110	110	5	4		
3	4	SAFFORD	46	1.52	29	3.8	101	PIMA S-4 35	7.0	2.1	4	5	71 PERCENT 7.7	14.8	65	37	6.1	5.4	110	110	4	2		
WEST TEXAS																								
3	4	EL PASO	44	1.41	33	3.6	98	PIMA S-3 33	7.4	3.5	5	6	100 PERCENT* 8.5	17.4	63	36	6.0	5.4	100	100	5	4		
3	4	EL PASO	44	1.38	33	4.1	97	PIMA S-4 34	7.0	2.4	5	6	95 PERCENT 8.1	18.4	63	35	5.7	5.0	100	110	8	5		
3	4	PECOS	44	1.39	37	3.3	95	PIMA S-4 34	6.6	3.2	5	7	100 PERCENT* 9.6	20.6	59	33	5.7	5.0	100	100	6	6		

\* 100 percent selected for tests, less than 100 percent in the area

